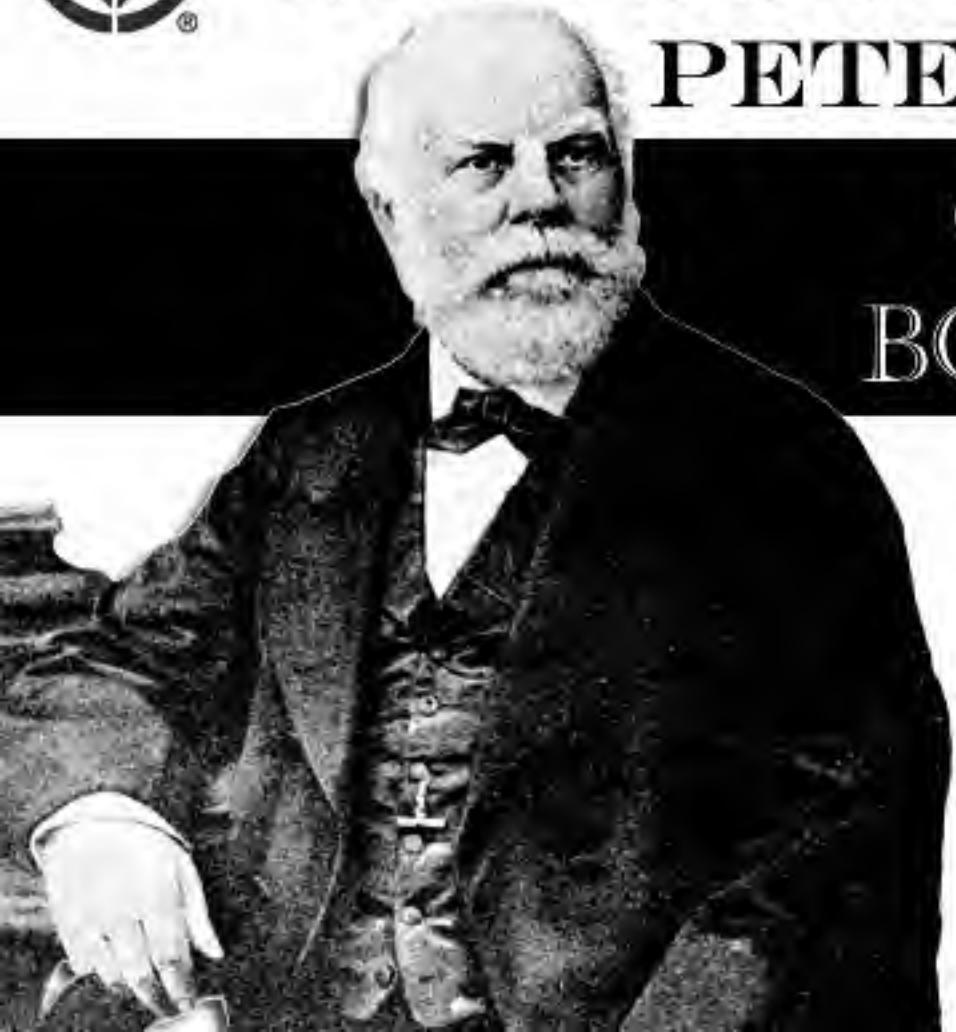




MISSOURI BOTANICAL GARDEN

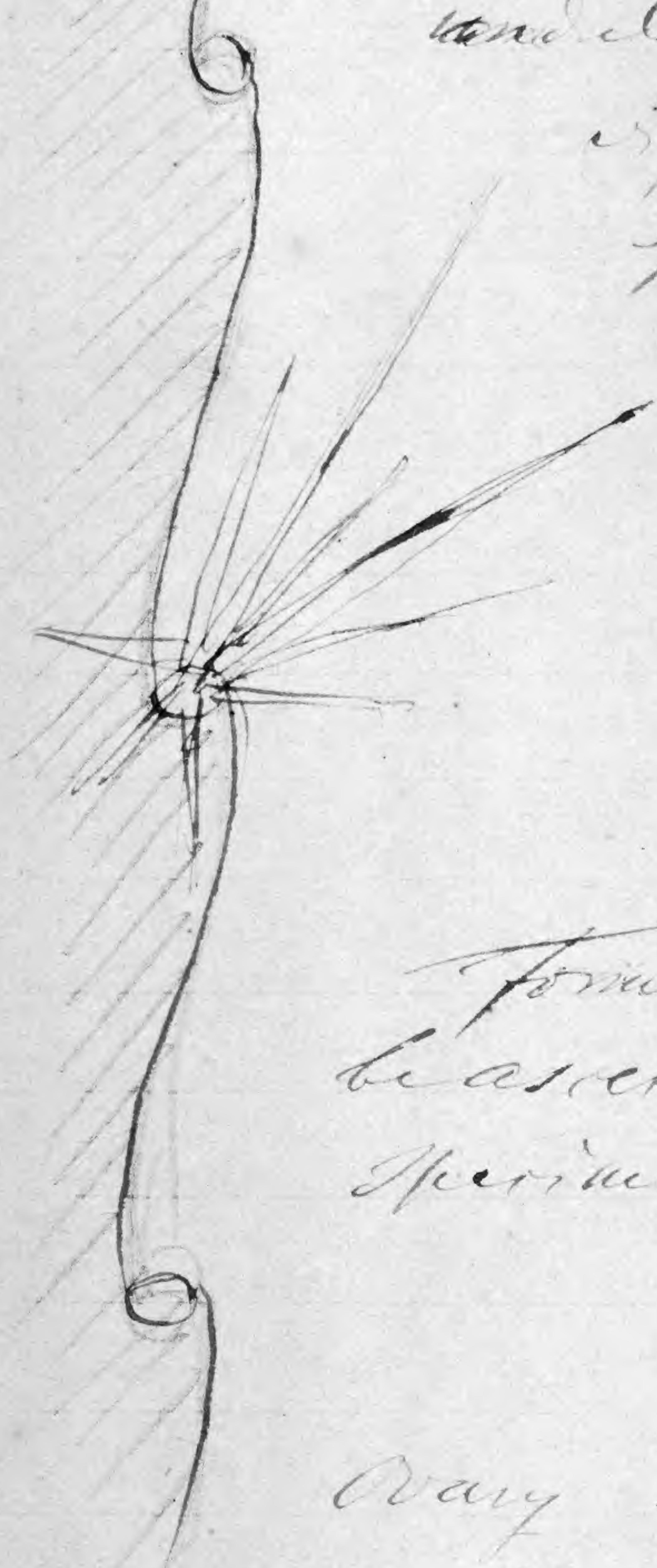
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GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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Cirrus - perhaps *principes* -
Hist. Bot. Missouri Sept 19. 1870. just past.
flowering - flower withered - 1780
Plant about 5 feet high, 5 angled or
ridged, somewhat articulated, nearly 4 inches $\frac{1}{4}$
in diameter; ribs compressed;
articulate crenate; areole $1\frac{1}{2}$ in
vigorous shoots 2 inches apart.
spines



Formula of flower as far as can P. 2¹¹
be ascertained from the withered S. 3²
Specimen. tab 5¹ { N 2¹
C. 1

flower $8\frac{1}{2}$ inches
Ovary with 25-30 very prominent tubercles
each bearing 2 to mostly 4 light brown stout spines
with axil of a minute scale, which however has
often dropped. - Ovary had 10 oblique ribs, tubercles
 $\frac{9}{10}$ arranged in 10 ribs on tube. the other
8 were oblique ribs, $\frac{8}{13}$ arranged, 8 ribs on tube
Tubet 5 inches long, narrow, 1 inch widens,
below with 8-10 spine-bearing areoles, upward
with 6-8 naked areoles in axil of small scales
No corona of stamens -
Style thick - Stigma rotten away.



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June 29 1871

Circus pinaceps

Shows Miss. Bot. Gard.

fl. last night.

Pet. 29 lin | 24 | adunc. 30 - number or 36
Stam. 39 - 36
Neat. 28 . 30
Ovary 12 (12
Flowers 108 lin (102
= 9 inches

12 slightly erect corolla, 9 l. long
no corona

21 strongly blunt eroded with broad
triangular scale & stout spine single
(or take sometimes 2 or 3 spines
in axilla of similar small
triangular scales

1791



0 1 2 3 4 5 6 7 8 9 10
cm

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Leitch & Collies

DRUGGISTS

West Fifth Corner and Market Streets



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cm

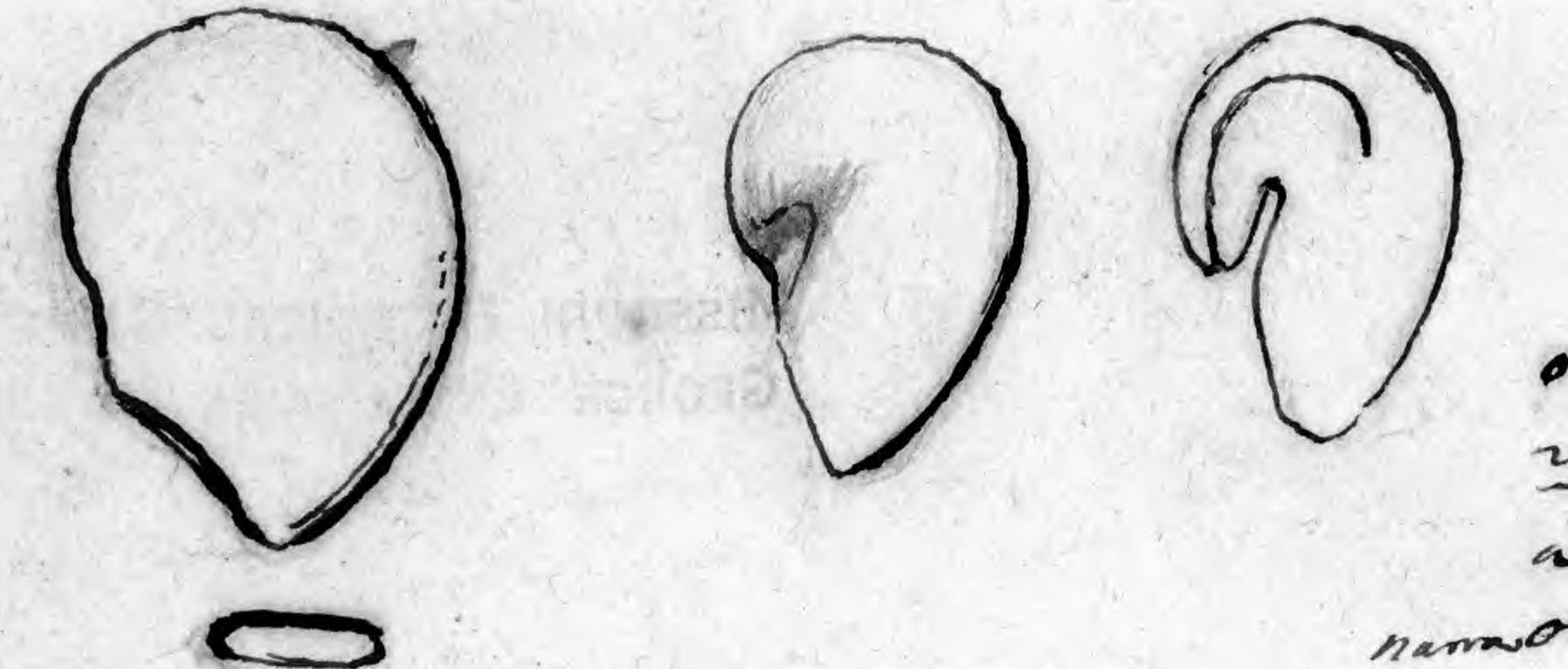
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2. *Cer. variabilis*
mucronous
I. 1
march 1856



1792

seed 1.1 - 1.3 dict 1.5 - 1.7" long
obliquely obsoete, oviporous, smooth,
very slightly suberectile - back bla
a little carinate - hilum suberectile
narrowly linear - Albus almost none
embryo much curved.



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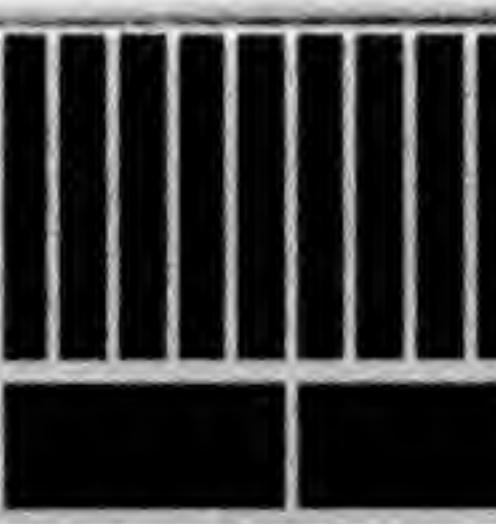
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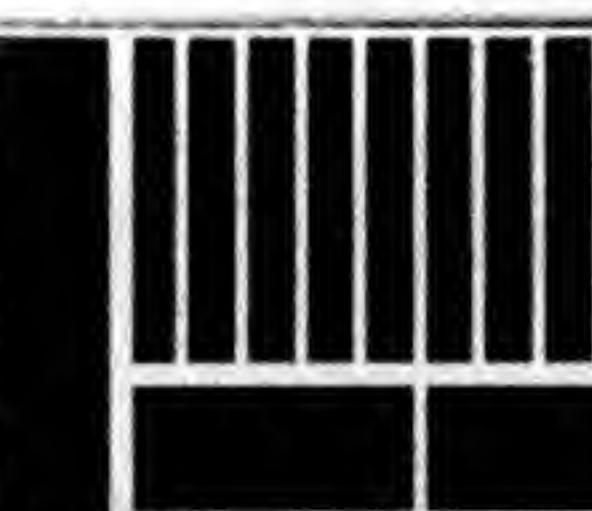
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Car. prueps

July 1859 Sept 1870

Length of Petals	P.	2	2	1793
Staminate part of tube	S.	2 $\frac{1}{2}$ -3	3	
nectarian part of ♀	N	2-2 $\frac{1}{2}$	2 $\frac{1}{2}$	
ovary	O	$\frac{3}{4}$ -1	1	
		<hr/>		
		7 $\frac{1}{4}$ -8 $\frac{1}{2}$	8 $\frac{1}{2}$	

flower 7-9 inches



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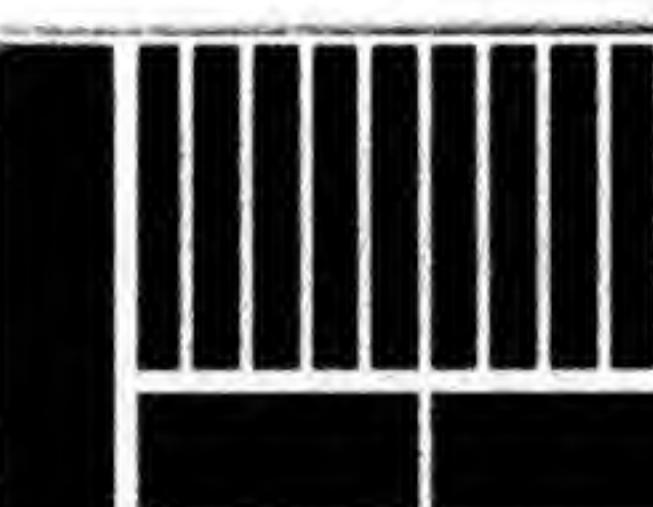


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2201

young El - e 368



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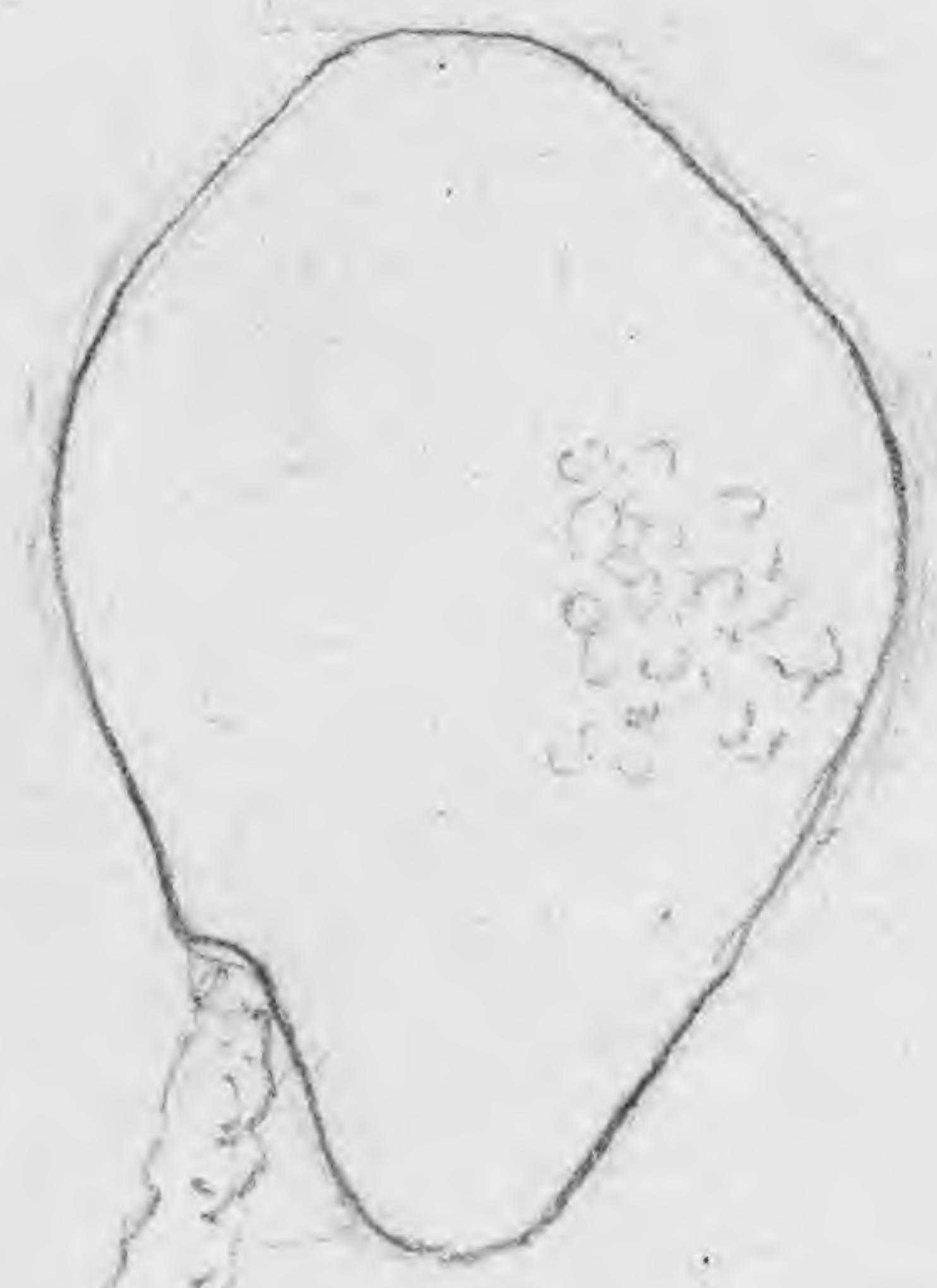


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Cereus peruvianus

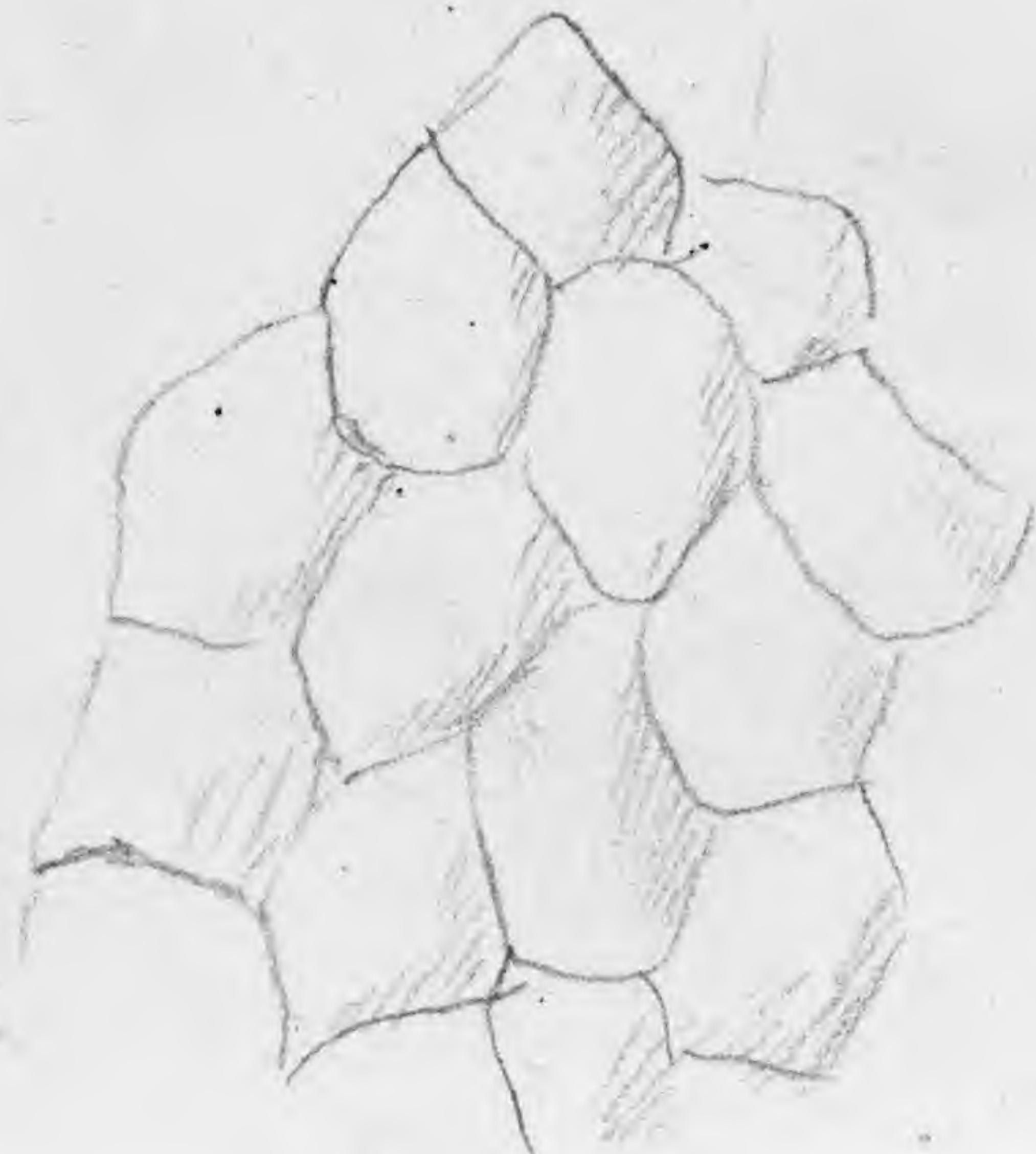
Sept 2nd 1873

x8



flat tubercles
on seed

x150



1794



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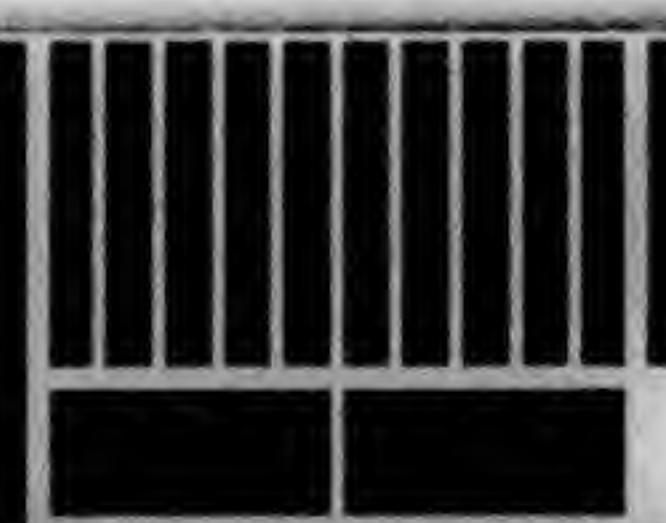
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Hortobal Duci 1889
1295



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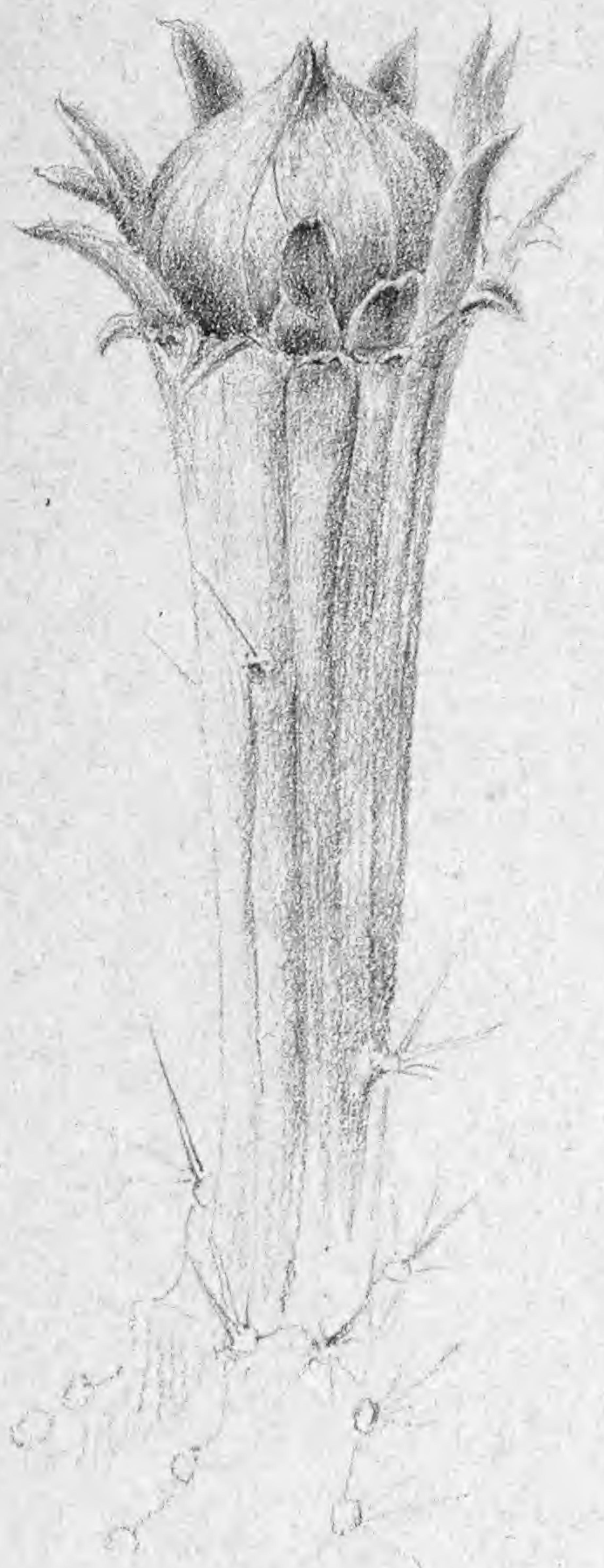
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15-5 Dm 22 Aug 1857. Gni & Grise.
15 Blätter und 5 Blattblätter sind am Dm. Dm. oben oben
auf einem Blatt, Dm. 2" mm, Dm. breite. 2.
Dm. 3" 3 mit Dm. 5" in Blattblätter.

P. A. C. C.

1796



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cm

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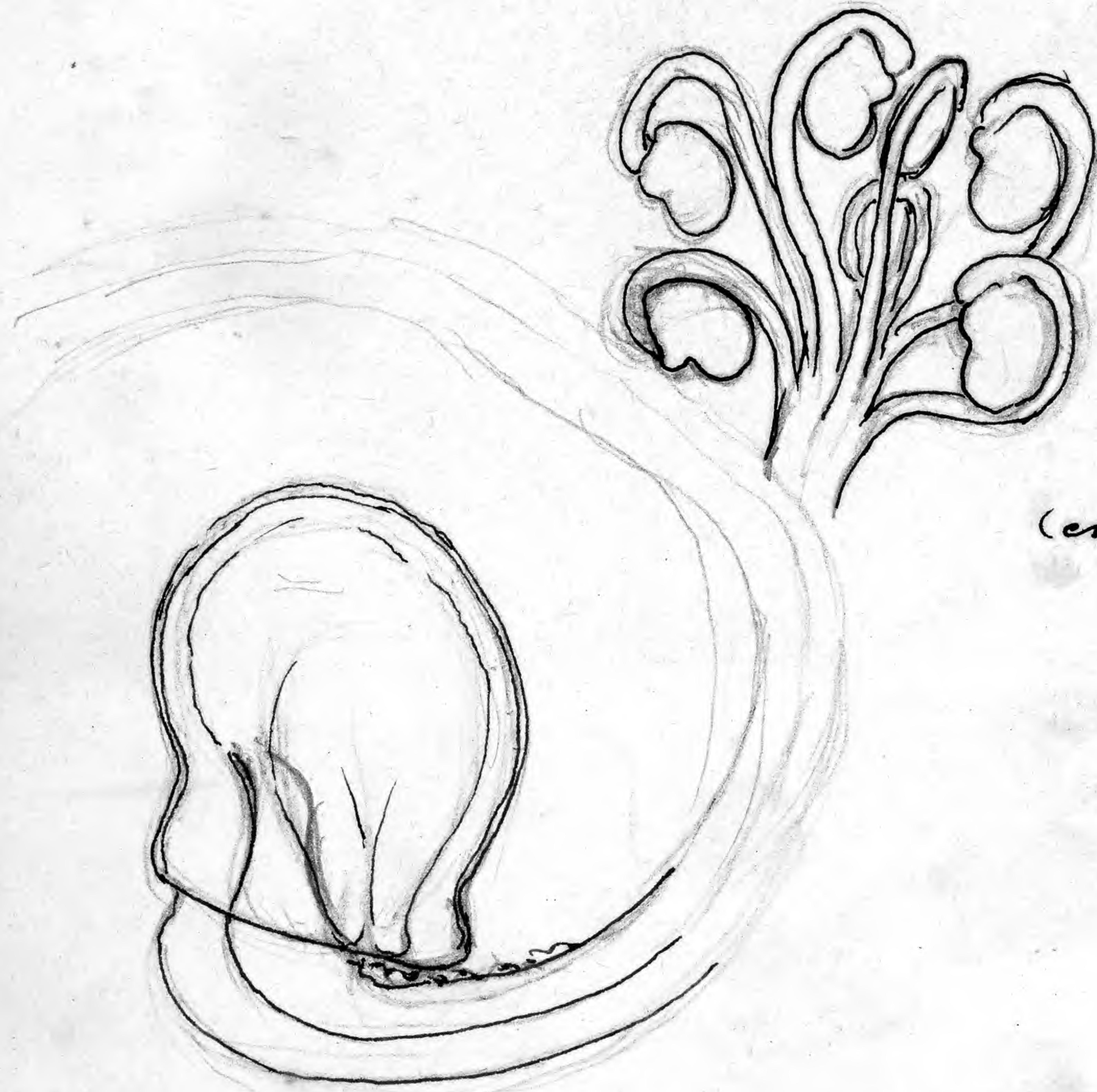


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At the tube. Lab. in. all drawn

$\frac{20}{7}$ sq

20-25" sq



1798

(cross visible)

only, 6 times magnified, therefore 0.3 cm long. — numerous
numerous small tubercles, the outside ones, on the
able to stick together, the whole forming
beautiful dense mass, feels very
extremely, and internally (see next side)
filaments white; anthers yellow;
1 line long
style thicker at base, gradually thinn-



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
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cm

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Ceratostigma *variable* N. 1855

July 19th 1859 flower at John Grieve's Allouez
flower 7⁹ inches long, 8^{1/2} inches fully expanded.

May 9-12 l. long, with about 25-30 anthers, in
1/11 arrangement; pubescent tubercles, lower ones with
1 very short bristle, upper ones with 2-3, 2-3 long
long (- 8 spines Sept 1858. 4-6 spines with a central stout one

Tube 4-5 inches long, cylind. below, trumpet
shaped upward, ^{dilated} green, smooth, with few
tubercles anthers, lower 8 or 10 with 1-4 spines
each, upper ones above 8, on the dilated part
of tube spines protuberances. On the ^{reflexed} upper edge
of the tube, which is well defined, 20-25¹ sepals,
the outer ones shorter, ³⁻⁹ ^{long} reddish green, the inner ones
petaloid, 9-18 long. Tube below 6-7
inches, at the base 18 inches in diameter.

Petals - several rows, linear lanceolate
lobes long 4 inches wide, acute, white
40-65 in number.

Lower part of the tube inside naked,
above 2-2 1/2 inches, moist, glutinous,
resiniferous; upper part, about 3 inches,
densely covered with a dense quantity
of flaments the lower, inner ones much
shorter than the tube, the outer ones, on the face
about 1 inch longer, the whole forming a
beautiful dense mass, gradually
extending and interlacing (see next side)
filaments white; anthers yellow, oblong
1 line long
style thicker at base, gradually thinner



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No. *Notios* II. XV. figures a diplothis, style plates; a row of style series
of upper stamens



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toward the top again a little thick ~~and divided~~
divide; divided into ¹²⁻ 13 pale green
stigmata forming a conic head.

Segments 6-7 l. long

Pollen globular 0.04 lvs diameter

Oralia a. 3. l. long; as in my *Centaurium*
many ~~are~~ curled, folded ~~and~~ ^{and} spread
fanwise on the inner side, ~~towards~~ the little ^{the} jagged
membranes, partly covers the microphyte.



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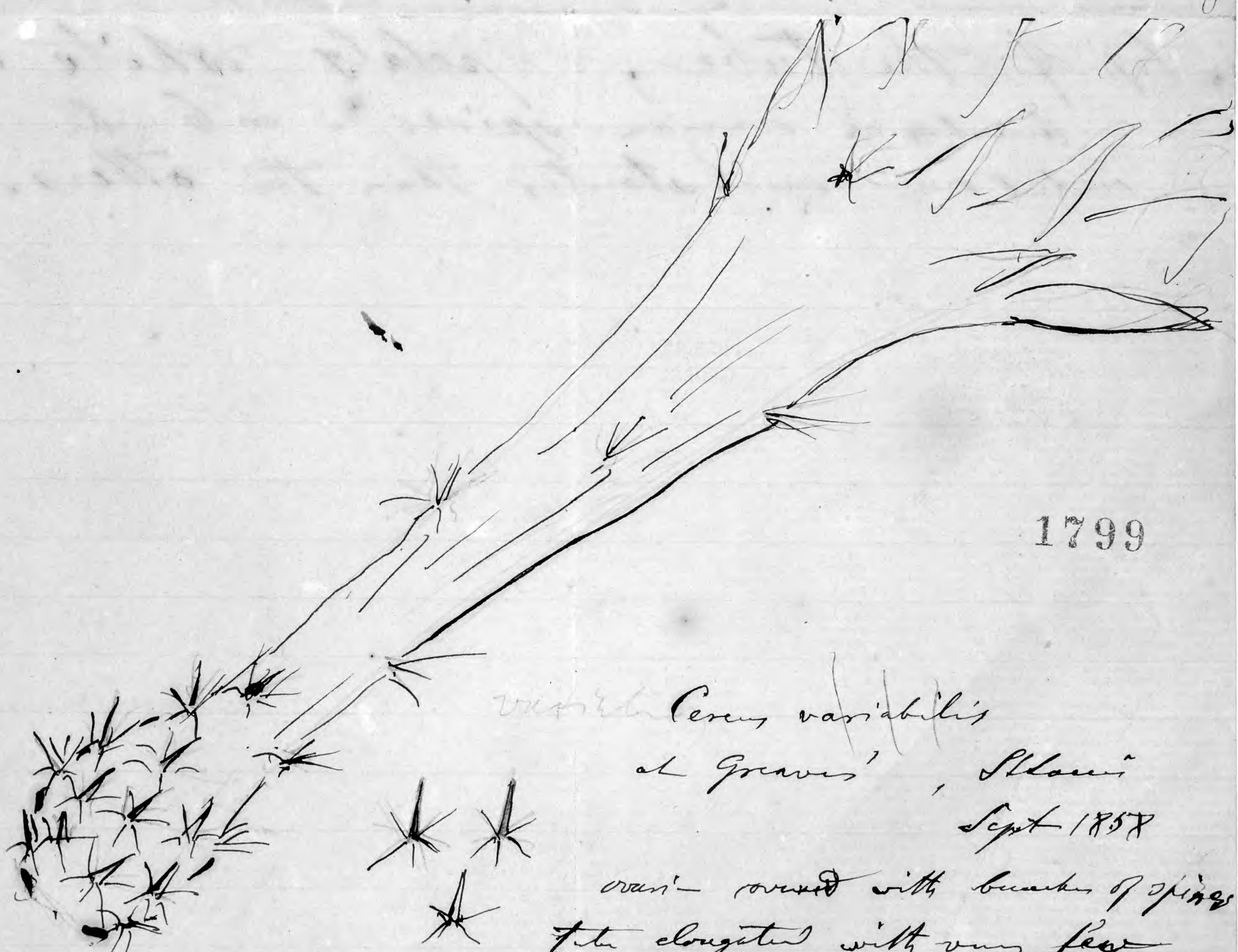
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is composed of
numerous
spines of
various
lengths &
directions.

W. Edwards
1853



Cereus variabilis
at Gravies', Shensi

Sept 1857

overly covered with bunches of spines
the elongated, with very few
bunches of spines placed closely
only toward the transverse shaped



0 1 2 3 4 5 6 7 8 9 10

cm

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May 10

young &
young &
young &
young &
young &
young &
young &

top of the tube, petals white -
branches of ovarian spines, 5 or 6 the
central one much stouter than the others -

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12 Griffel

alle Blätter grünlich
der Griffel ist weiß in gewöhnly
fallend, Staubfäden gelb.

Druckt

die Blätter
sind grünlich
in der Mitte grün
am Rand dunkel
roth.

Druckt

sieht auf dem
Blatt grün
am 25 Sept 1855
9 1/2 Uhr

Varabilis

1860

Rothe del.



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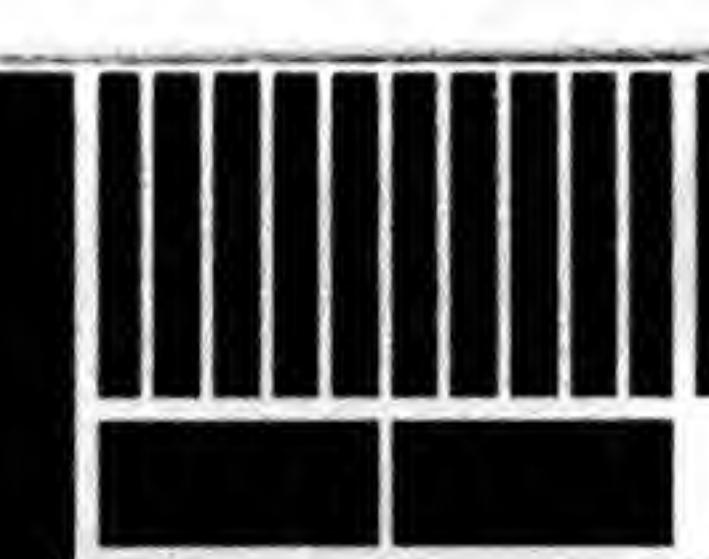
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